

Claims

- [c1] 1. An organic electroluminescent device, comprising:
an anode, over a substrate;
a cathode, over the anode;
a blue luminescent layer, between the anode and the cathode, the blue luminescent layer comprising:
a host;
a first dopant, doped within the host; and
a second dopant, doped within the host, the light wavelength generated by the second dopant is different from the light wavelength generated by the first dopant.
- [c2] 2. The organic electroluminescent device of claim 1, wherein a weight percentage of the first dopant within the blue luminescent layer is more than that of the second dopant.
- [c3] 3. The organic electroluminescent device of claim 2, wherein the first dopant within the blue luminescent layer is from about 0.01 % to about 50 % by weight, which generates a light having a peak wavelength from about 400 nm to about 470 nm.
- [c4] 4. The organic electroluminescent device of claim 2,

wherein the second dopant within the blue luminescent layer is from about 0.01 % to about 50 % by weight, which generates a light having a peak wavelength from about 420 nm to about 490 nm.

- [c5] 5. The organic electroluminescent device of claim 1, wherein an absorption wavelength of the second dopant is shorter than an emitting wavelength of the first dopant.
- [c6] 6. The organic electroluminescent device of claim 1, wherein the first dopant includes amino substituted distyrylarylene.
- [c7] 7. The organic electroluminescent device of claim 1, wherein the second dopant includes perylene compound.
- [c8] 8. The organic electroluminescent device of claim 1, further comprising an orange-red luminescent layer between the anode and the blue luminescent layer.
- [c9] 9. The organic electroluminescent device of claim 1, further comprising an orange-red luminescent layer between the cathode and the blue luminescent layer.
- [c10] 10. A method of fabricating an organic electroluminescent device, comprising:
forming an anode on a substrate;

forming a blue luminescent layer on the anode, wherein the blue luminescent layer comprises:

a host;

a first dopant, doped within the host;

a second dopant, doped within the host, the light wavelength generated by the second dopant is different from the light wavelength generated by the first dopant; and

forming a cathode on the blue luminescent layer.

[c11] 11. The method of fabricating an organic electroluminescent device of claim 10, wherein a weight percentage of the first dopant within the blue luminescent layer is more than that of the second dopant.

[c12] 12. The method of fabricating an organic electroluminescent device of claim 11, wherein the first dopant within the blue luminescent layer is from about 0.1 % to about 10 % by weight, which generates light having a peak wavelength from about 400 nm to about 470 nm.

[c13] 13. The method of fabricating an organic electroluminescent device of claim 11, wherein the second dopant within the blue luminescent layer is from about 0.1 % to about 10 % by weight, which generates light having a peak wavelength from about 420 nm to about 490 nm.

[c14] 14. The method of fabricating an organic electrolumi-

nescent device of claim 10, wherein an absorption wavelength of the second dopant is shorter than an emitting wavelength of the first dopant.

[c15] 15. The method of fabricating an organic electroluminescent device of claim 10, wherein the first dopant includes amino substituted distyrylarylene.

[c16] 16. The method of fabricating an organic electroluminescent device of claim 10, wherein the second dopant includes perylene compound.

[c17] 17. The method of fabricating an organic electroluminescent device of claim 10, further comprising forming an orange-red luminescent layer between the anode and the blue luminescent layer.

[c18] 18. The method of fabricating an organic electroluminescent device of claim 10, further comprising forming an orange-red luminescent layer between the cathode and the blue luminescent layer.